Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

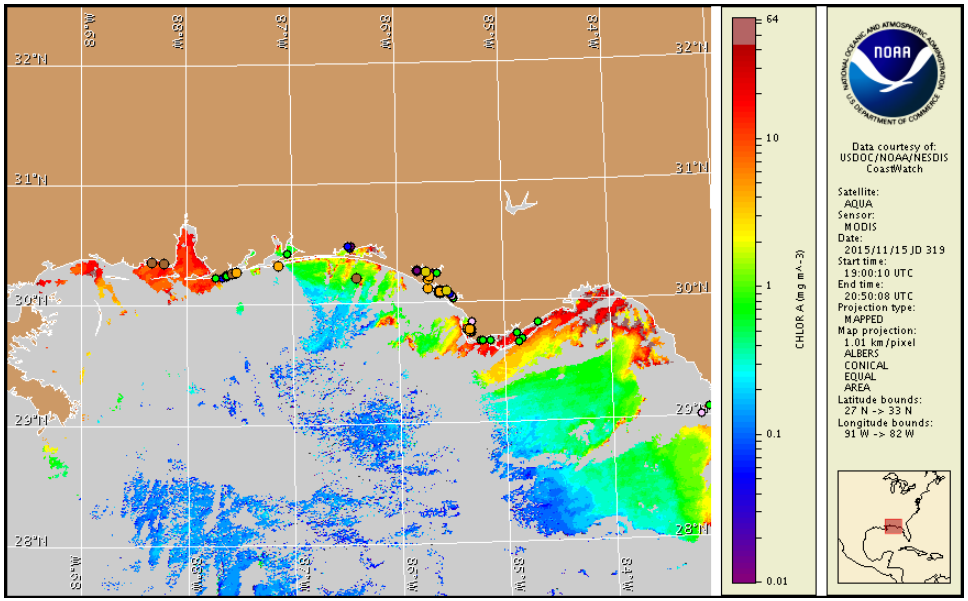
Thursday, 19 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 16, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 9 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore Mobile and Baldwin Counties in Alabama and portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore Alabama and northwest Florida Thursday, November 19 to Monday, November 23 is listed below:

County Region: Forecast (Duration)
Mobile County: Low (Th-M)
Baldwin County: Very Low (Th-M)
Baldwin County, bay regions-Perdido Bay area Moderate (Th-M)
Escambia County: Very Low (Th-M)
Santa Rosa County: Very Low (Th-M)
Okaloosa County: Very Low (Th-M)
Okaloosa County, bay regions: Very Low (Th-M)
Walton County: Very Low (Th-M)
Bay County: Very Low (Th-M)
Bay County, bay regions: High (Th-M)
Gulf County: Very Low (Th-M)
Gulf County, west bay regions-St. Joseph Bay area: Moderate (Th-M)
All Other NWFL County Regions: None expected (Th-M)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Reports of dead fish were received from Escambia and Gulf counties.

Analysis

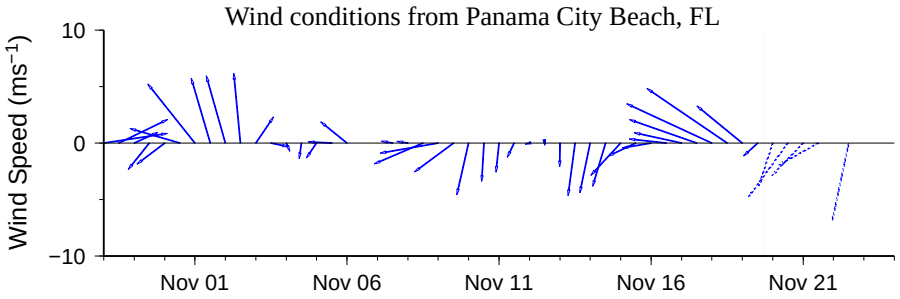
Recent water samples collected from Alabama and northwest Florida continued to indicate the presence of *Karenia brevis* alongshore from Mobile County, Alabama to Gulf County, Florida.

In Alabama, samples confirmed that *Karenia brevis* concentrations were 'very low b' to 'medium' alongshore Baldwin County, and 'medium' in Perdido Pass of Baldwin County (ADPH; 11/13). In northwest Florida, samples confirmed that *K. brevis* concentrations were background to 'medium' in St Andrew Bay of Bay County (FWRI; 11/16-11/17). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Reports of dead fish were received from Escambia and Gulf counties (FWRI; 11/13-18).

Recent ensemble imagery (MODIS Aqua, 11/16) is obscured by clouds from Mobile County to Walton County, limiting analysis in those areas. Patches of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* are visible along- and offshore northwest Florida from Bay to Gulf counties.

Winds forecast Thursday through Monday may promote the continued westward transport of *K. brevis* concentrations in Alabama and northwest Florida and may include the transport of *K. brevis* into Mississippi. New sampling for this region is recommended.

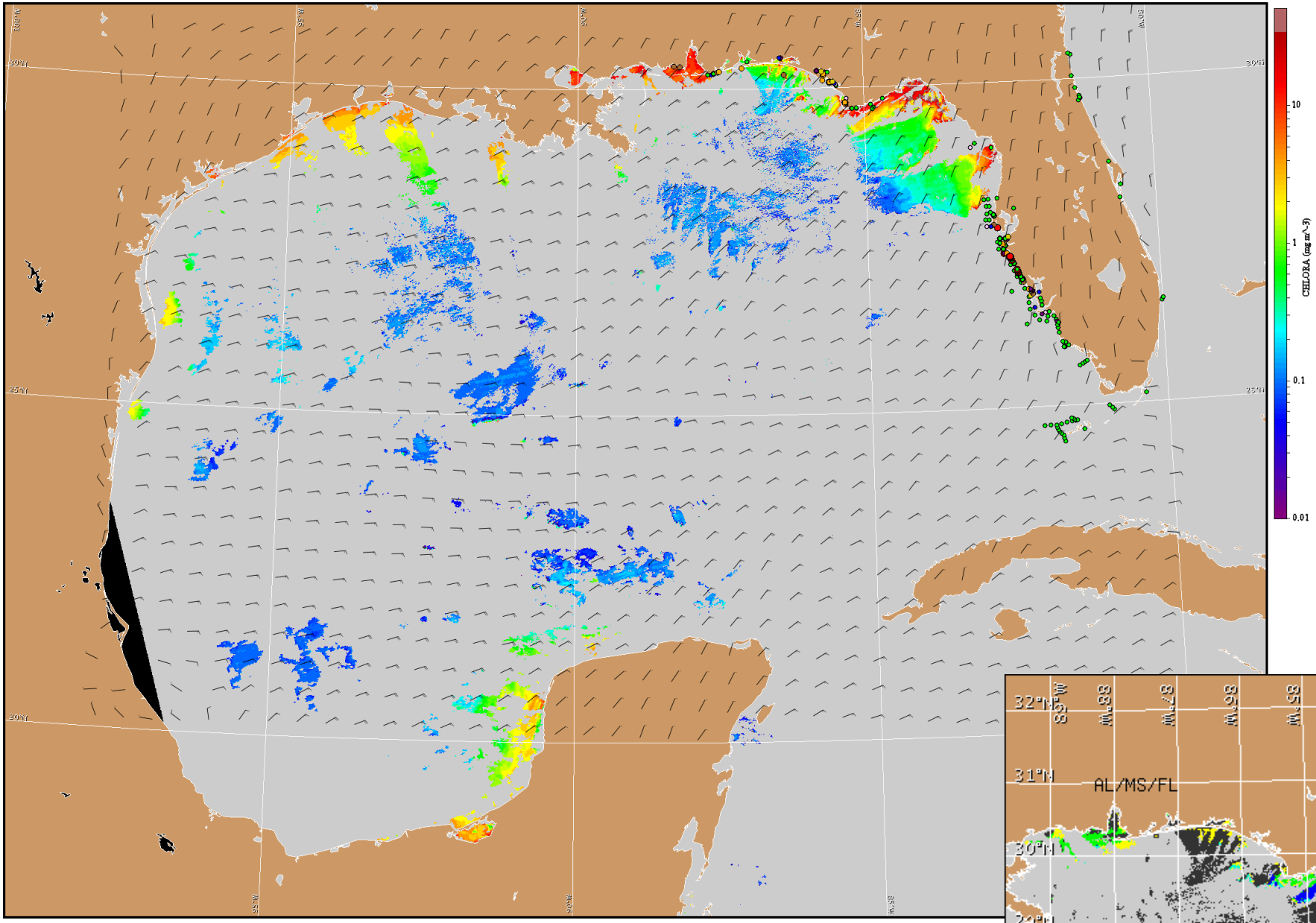
Yang, Davis



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Escambia to Taylor counties: North winds (10-15kn, 5-8m/s) Thursday afternoon. Northeast to east winds (10-20kn, 10m/s) Thursday night through Saturday. North winds (20kn, 10m/s) Sunday becoming northeast (15-20kn, 8-10m/s) Monday.



Satellite chlorophyll image and forecast winds for November 20, 2015 12Z with points representing cell concentration sampling data from November 9 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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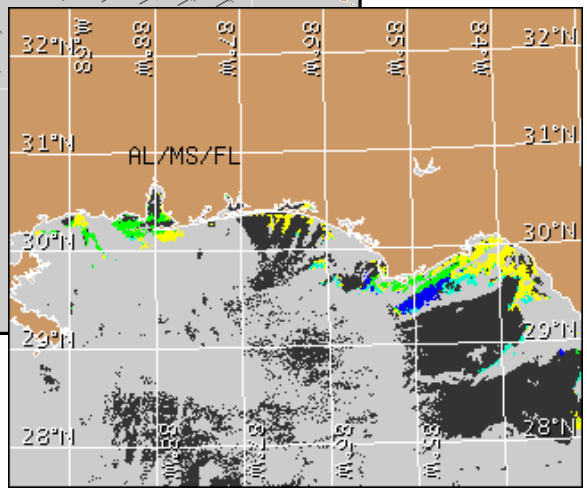

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).